

Minutes from the Advisory Board meeting for the Mechatronics programs

20th October 2020 at 12:30-15:00

The Meeting is held: Online via Zoom

Invited for the meeting: Svend Erik Jensen, Subst. Peter Graversen (Linak), Henning Højbjerg Kristensen (Bitzer Electronics), Daniel H. Pedersen (SAAB Group), Morten Klietsch (Agramkow), Krzysztof Sierszecki (Danfoss Drives), Jesper Skov Gretlund (Ørsted), Dietmar Weiss (Danfoss Cooling), Lars Duggen (SDU), Jakob Kjelstrup-Hansen (SDU), Bjarne Schmidt (SDU), Søren Top (SDU), Christina Skytte Møller (SDU)

With apologies: Henning Højbjerg Kristensen (Bitzer Electronics); Jesper Skov Gretlund (Ørsted), Svend Erik Jensen (Linak)

Minutes

1. Welcome

The meeting started with a presentation round, as there were new members in the Advisory Board

2. Status for the education:

a. Admission 2020

This year we offered the same number of students a seat on the bachelor programs, but fewer students accepted the seat. The main reason for that is COVID-19, so overall less students started on the bachelor programs in September, compared with last year. The numbers are though still higher than 2 years ago. On the master program we had more applicants, compared with the previous years. A significant part of them applied in the second round and many of them have been rejected, as they did not fulfill the requirements – either academic requirements or the English proficiency.

Due to the COVID-19 we had to cancel the study start test, partially because not all students could be here in time or they had to be in quarantine. That means that we are not 100% sure on how many students exactly showed up for the semester start.

We are offering hybrid teaching this semester, as we do not have classrooms big enough for all students, as the rooms only can be filled with half the amount.

It's been hard for students with the lock-down in the Spring and we can see it has affected their motivation.

We have applied for a Mechanical Engineering program in Sønderborg. We expect a reply from the Ministry in December, if we can offer the programs from September 2021.

b. Change of profiles on the bachelor programs

As we now offer Electronic Engineering programs and probably soon Mechanical Engineering programs, we are thinking of changing the profiles on the Mechatronics program as it might not make sense having Electronic and Mechanical profiles also, while offering full programs in both Electronics and Mechanical Engineering.

The education therefore suggests not to offer the profiles anymore, but instead offer elective courses from the electronic and the mechanical engineering programs and add a new course within Machine Learning.

The advisory board members were positive about the idea but had concerns about the software profile and how it will be possible to specialize within that field? It will still be possible as the courses Advanced Programming (ADP) and Real Time Operation Systems (RTOS) will be offered as electives. And the courses Digital Design and Signal processing can be chosen from the electronic program. On the Master program in Mechatronic, the Embedded System profile will also still be offered. The board also questioned how the mechatronics program can position itself between the two other programs – the Electronics & The Mechanical Engineering. It is important to focus a lot in the branding of the program, especially now without the profiles and competing with the two other programs. The program can brand itself on the understanding of systems, more than on the focus in machine learning.

3. THEME – Diversity on our Engineering programs (with a focus on gender)

How can we as education attract more female students to our programs in Sønderborg?

We had invited a female engineer to give a small presentation on this topic, but unfortunately, she was prevented in join the meeting. Two female students were also invited and they both got their interest in engineering via influence by family members being engineers. They liked the program and did not think they were being different by being girls on the program.

It was discussed if it could be an idea to make the programs more appealing via climate/sustainability projects for example. We already have put in SDGs in the curriculum and course descriptions, but it might not have been marketed good enough. The board agreed that words as sustainability, environment, climate and circular economy should be emphasize in the marketing of the program. It could also be interesting to look at which obstacles should be removed to make the engineering programs more attractive for female students? LEGO for example changed their design on the educational sets – and it's much more attractive for both genders now. The University could also have focus on videos with graduates, how does what you learned being applied in the real world – with focus on the environment.

The board did not think that we should change anything on the program, as it is good as it is and the female students liked the program a lot, as it is. It's more a question about

better marketing and be better at focusing on what you can become with an engineering degree.

4. AOB

- a. NEW Department in Sønderborg. There has been a change in the organizational structure on the Technical Faculty in Sønderborg. There is a new Department for Mechanical and Electrical Engineering (IME) which Mechatronics now is part of.
- b. NIA20. SDU got the Institutional Accreditation 6 years ago, meaning that we could change and offer new programs without applying the Ministry for every change. 6 years after we have to go through a New Institutional Accreditation (NIA20) and the Mechatronics program just went through that process. In December we will know if you have obtained the accreditation for the next 6 years.
- c. Course in PLC. Is it important that we offer a whole course in PLC? The board thinks a whole course in PLC is overkill – a shorter introduction within a course would be fine
- d. TEK EXPO. We plan to do the TEK EXPO a bit different this year, as we cannot open the doors for everybody as we use to. It would though be very nice for the students if some company representatives could come physically and comment on the projects, so you might receive an invitation for that.
- e. Are internships and projects with students affected by COVID-19? The board were positive about still offering Internships to students. Some companies will though, due to restriction, offer less than normal